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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,643	12/21/2001	Timothy Harris Kuhl	123081-339668 (T01215-008)	6337
27155	7590	06/22/2006	EXAMINER	
MCCARTHY TETRAULT LLP BOX 48, SUITE 4700, 66WELLINGTON STREET WEST TORONTO, ON M5K 1E6 CANADA			SCHEIBEL, ROBERT C	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/023,643	<b>Applicant(s)</b> KUHL ET AL.	
	<b>Examiner</b> Robert C. Scheibel	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 9-19 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 11-17 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 9, 10, 18, 19, 21 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

- Examiner acknowledges receipt of Applicant's Amendment dated 4/13/2006.
- Claims 1-7, 9-16, 19, 21, and 23 are currently amended.
- Claims 8 and 20 have been cancelled.
- New claims 24 and 25 have been added.
- Claims 1-7, 9-19, and 21-25 are currently pending.

### ***Response to Arguments***

1. Applicant's arguments, see page 11, filed 4/13/2006, with respect to the rejection of claims 3-11 and 14-23 under 35 U.S.C. 112, second paragraph, have been fully considered and are persuasive. The rejection of claims 3-11 and 14-23 under 35 U.S.C. 112, second paragraph, has been withdrawn.
2. Applicant's arguments, see page 11, filed 4/13/2006, with respect to the rejection of claims 1-3 and 12-24 under 35 U.S.C. 102(e) and claims 4-7, 11, 15-17 and 23 under 35 U.S.C. 103(a), have been fully considered but they are not persuasive. Applicant argues that since the subject matter of claims 8 and 20 has been added to independent claims 1 and 12, the independent claims 1 and 12 and the dependent claims are allowable. Applicant also argues that since new claims 24 and 25 contain similar subject matter, they are also allowable. Examiner respectfully disagrees. The previous office action indicated that allowable subject matter in claims 8-10 and 18-22. Specifically, the office action stated that these claims, if written in independent form to include all limitations of the intervening claims as well as the limitations of claims 8-10 and 18-22 would be allowable. New claims 1 and 12 do not include all the

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limitations of claims 2-8 and 13-18 and are thus not the same claims as were indicated allowable in the previous action. The current claims 1 and 12 are considerably broader and have been rejected accordingly below.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3 and 12-17 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,631,122 to Arunachalam et al.

Regarding independent claims **1 and 12**, Arunachalam discloses a method of translating at least one quality of service (QoS) parameter related to a first cell-based transmission protocol from said first cell-based transmission protocol to a second transmission protocol for a data element being sent on a connection from a first cell-based communication network (the wireline network – see lines 54-57 of column 7; this network is cell-based as shown in figure 2 – see network 211 which runs over ATM and is thus clearly cell-based) utilizing said first transmission protocol (IP/ATM in the example) to a second communication network (the wireless network – see lines 54-57 of column 7) utilizing said second transmission protocol (the wireless protocol), said method comprising: mapping said at least one QoS parameter (ToS or DS byte) to a class of service value for said connection (see lines 1-6 of column 8); and mapping said class of service

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value to another parameter (the “address of the resources allocated” – see lines 47-52 of column 9) indicating a quality of service provisioning for said second transmission protocol, wherein said at least one QoS parameter includes at least one of a service category, cell loss ratio and cell delay variation (the ToS (“Type of Service”) or DS byte clearly indicates a service category (type of service).)

Regarding claims **2 and 13**, Arunachalam discloses the limitation that said at least one QoS parameter includes a priority rating for said data element (the ToS or DS field indicates a priority that is to be given to the packet).

Regarding claims **3 and 14**, Arunachalam discloses the limitation of converting said data element of said connection from at least one first data element associated with said first transmission protocol to a second data element associated with said second transmission protocol in that the IP packets are clearly converted to radio link packets prior to transmission in the radio network. Arunachalam also discloses the limitation of associating a value of said another transmission parameter with said second data element in that the physical resource (the supplemental channel – see lines 2-3 of column 10) must be associated with the data element (the packet) in order to properly transmit it on the wireless network.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims **4-6 and 15-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,631,122 to Arunachalam et al in view of U.S. Patent 6,633,571 to Sakamoto et al.

Regarding claims **4 and 15**, Arunachalam discloses all the limitations of parent claims 3 and 14 as discussed in the rejection under 35 U.S.C. 102(e) above.

Arunachalam does not disclose expressly the limitation of claims 4 and 15 that the at least one QoS parameter further indicates drop precedence and the another parameter indicates quality of service provisioning and drop precedence for the second data element in the second communication network. However, Sakamoto discloses in one embodiment, translating quality of service parameters between an ATM network and an MPLS network. See figure 13 for example; lines 27-31 of column 3 and lines 40-42 of column 3 indicate that the VPN is carried over one or more MPLS networks. In figure 13, it is clear that the second parameter of the claims is disclosed in the CLP parameter which clearly indicates drop precedence. The table clearly shows this parameter being mapped to another parameter (QoS 305) which is clearly

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indicates quality of service provisioning for the connection and is tied to the drop precedence as it is based on the CLP parameter in the ATM header.

Arunachalam and Sakamoto are analogous art because they are from the same field of endeavor of quality of service mapping among heterogeneous networks. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Arunachalam to translate between ATM and MPLS networks and thus use the parameters indicated in Sakamoto. The motivation for doing so would have been to provide VPNs using MPLS as a means of decreasing cost (see lines 40-47 of column 1 and lines 55-66 of column 1). Therefore, it would have been obvious to combine Sakamoto with Arunachalam for the benefit of providing VPNs as a reduced cost alternative to leased lines to obtain the invention as specified in claims 4 and 15.

Regarding claims **5 and 16**, the combination of Arunachalam and Sakamoto discussed above discloses the limitation that the second communication network is an MPLS network, the second transmission protocol is a MPLS transmission protocol and the second data element is a MPLS frame. See lines 27-31 of column 3 and lines 40-42 of column 3, which indicate that the VPN is carried over one or more MPLS networks.

Regarding claims **6 and 17**, the combination of Arunachalam and Sakamoto discussed above discloses the limitation that the first communication network is an ATM network, the first transmission protocol is an ATM transmission protocol and each of the at least one first data element is an ATM cell. See figure 13 and lines 14-19 of column 9 indicating that the input side is ATM.

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8. Claims **7, 11, and 23-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,631,122 to Arunachalam et al in view of U.S. Patent 6,633,571 to Sakamoto et al and in further view of U.S. Patent Application Publication 2002/0131408 to Hsu et al.

Regarding claim **7**, Arunachalam, as modified above, discloses the limitation of parent claim 6 as discussed in the rejection under 35 U.S.C. 103(a) above. Arunachalam does not disclose expressly the limitations of claim 7. However, the combination of Arunachalam and Sakamoto above does not disclose expressly the limitation that the MPLS experimental field is used to carry the another parameter which indicates the drop precedence. However, Hsu discloses this limitation in lines 11-12 of paragraph 34 on page 3. Hsu and Arunachalam, modified, are analogous art because they are from the same field of endeavor of mapping protocols over MPLS networks. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Arunachalam, modified, to use the experimental field to send the QoS value indicating drop precedence. The motivation for doing so would have been to properly conform to MPLS standards and thus make the device operable with other MPLS standard device as suggested by Hsu in lines 11-12 of paragraph 34 on page 3. Therefore, it would have been obvious to combine Hsu with Arunachalam, modified, for the benefit of better interoperability to obtain the invention as specified in claim 7.

Regarding claims **11 and 23**, Arunachalam et al discloses the limitation of parent claims 3 and 14 as discussed in the rejection under 35 U.S.C. 102(e) above. Arunachalam does not disclose expressly the limitations of claims 11 and 23. However, Sakamoto discloses in one embodiment, translating quality of service parameters between an ATM network and an MPLS network. See figure 13 for example; lines 27-31 of column 3 and lines 40-42 of column 3



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indicate that the VPN is carried over one or more MPLS networks. Sakamoto the limitation that the second communication network is an MPLS network, the second transmission protocol is a MPLS transmission protocol and the second data element is a MPLS frame. See lines 27-31 of column 3 and lines 40-42 of column 3, which indicate that the VPN is carried over one or more MPLS networks. Sakamoto discloses the limitation that the first communication network is an ATM network, the first transmission protocol is an ATM transmission protocol and each of the at least one first data element is an ATM cell. See figure 13 and lines 14-19 of column 9 indicating that the input side is ATM. In figure 13, it is clear that the second parameter of the claims is disclosed in the CLP parameter which clearly indicates drop precedence. The table clearly shows this parameter being mapped to another parameter (QoS 305) which is clearly indicates quality of service provisioning for the connection and is tied to the drop precedence as it is based on the CLP parameter in the ATM header. Arunachalam and Sakamoto are analogous art because they are from the same field of endeavor of quality of service mapping among heterogeneous networks. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Arunachalam to translate between ATM and MPLS networks and thus use the parameters indicated in Sakamoto. The motivation for doing so would have been to provide VPNs using MPLS as a means of decreasing cost (see lines 40-47 of column 1 and lines 55-66 of column 1).

However, the combination of Arunachalam and Sakamoto above does not disclose expressly the limitation that the MPLS experimental field is used to carry the another parameter which indicates the drop precedence. However, Hsu discloses this limitation in lines 11-12 of paragraph 34 on page 3. Hsu and Arunachalam, modified, are analogous art because they are

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from the same field of endeavor of mapping protocols over MPLS networks. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Arunachalam, modified, to use the experimental field to send the QoS value indicating drop precedence. The motivation for doing so would have been to properly conform to MPLS standards and thus make the device operable with other MPLS standard device as suggested by Hsu in lines 11-12 of paragraph 34 on page 3. Therefore, it would have been obvious to combine Hsu with Arunachalam, modified, for the benefit of better interoperability to obtain the invention as specified in claims 11 and 23.

Regarding claims **24 and 25**, Arunachalam discloses a method of formatting a first packet to support a quality of service (QoS) parameter related to a second packet when said first packet is transmitted on a first communication network said method comprising: mapping said QoS parameter (the ToS or DS byte) to a class of service value (see lines 1-6 of column 8) for the connection for said first packet; mapping said class of service value to another parameter (the “address of the resources allocated” – see lines 47-52 of column 9) indicating a quality of service provisioning for said first communication network; wherein said QOS parameter includes at least one of a service category (the ToS (“Type of Service”) or DS byte clearly indicates a service category (type of service)), cell loss ratio and cell delay variation.

Arunachalam does not disclose expressly the limitations of that the first packet is an MPLS packet and the second packet is an ATM cell and the first communication network is an MPLS network. Arunachalam also does not disclose expressly the limitations of inserting class of service value into a experimental field of a header of said MPLS packet and inserting contents of said ATM cell in said MPLS packet. However, Sakamoto discloses in one embodiment,

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translating quality of service parameters between an ATM network and an MPLS network. See figure 13 for example; lines 27-31 of column 3 and lines 40-42 of column 3 indicate that the VPN is carried over one or more MPLS networks. See also figure 13 and lines 14-19 of column 9 indicating that the input side is ATM. Clearly the ATM cell's contents are inserted in the MPLS packet to transmit it across the network.

Arunachalam and Sakamoto are analogous art because they are from the same field of endeavor of quality of service mapping among heterogeneous networks. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Arunachalam to translate between ATM and MPLS networks and thus use the parameters indicated in Sakamoto. The motivation for doing so would have been to provide VPNs using MPLS as a means of decreasing cost (see lines 40-47 of column 1 and lines 55-66 of column 1).

The combination of Arunachalam and Sakamoto above does not disclose the limitation of inserting class of service value into a experimental field of a header of said MPLS packet. However, Hsu discloses this limitation in lines 11-12 of paragraph 34 on page 3. Hsu and Arunachalam, modified, are analogous art because they are from the same field of endeavor of mapping protocols over MPLS networks. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Arunachalam, modified, to use the experimental field to send the QoS value indicating drop precedence. The motivation for doing so would have been to properly conform to MPLS standards and thus make the device operable with other MPLS standard device as suggested by Hsu in lines 11-12 of paragraph 34 on page 3. Therefore, it would have been obvious to combine Hsu with Arunachalam, modified, for the benefit of better interoperability to obtain the invention as specified in claims 24 and 25.

*Allowable Subject Matter*

1. Claims **9-10, 18-19 and 21-22** would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

*Conclusion*

9. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Scheibel whose telephone number is 571-272-3169. The examiner can normally be reached on Monday and Thursday from 6:30-5:00 Eastern Time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*RC S 6-15-06*  
Robert C. Scheibel  
Examiner  
Art Unit 2616

*Seema S. Rao 6/19/06*  
**SEEMA S. RAO**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**